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Regulation of Lobster Bait Alternatives in New England

June 2020

This guide is a product of the Marine Affairs Institute at Roger Williams University School of Law and the Rhode Island Sea Grant Legal Program. Victoria Rosa, Rhode Island Sea Grant Law Fellow, provided research and drafting for this study with guidance from Read Porter, Senior Staff Attorney. All errors and omissions are the responsibility of the Marine Affairs Institute. This study is provided only for informational and educational purposes and is not legal advice.

The collapse of the Atlantic herring (*Clupea harengus*) fishery in New England has created a dilemma for American lobster (*Homarus americanus*) fishermen. With declining supplies and increasing prices for their primary lobster bait source, the industry is urgently seeking alternatives. However, there are no easy solutions: alternatives including Asian carp, artificial baits, and salmon scrap baits present a range of environmental, economic, and legal challenges. An understanding of the regulatory environment governing bait movement, sale, and use is important to support informed decision by states and lobstermen¹ as they determine how to change their current practices in the face of new realities.

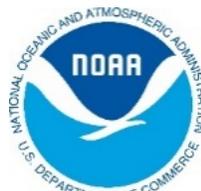
This study explores how bait is currently regulated in New England states and how that regulation may affect bait alternatives under consideration for use in the lobster industry. Part I reviews how herring is used by the lobster industry and how the herring stock collapse has led to consideration of bait alternatives. Part II discusses how New England states currently regulate bait importation, sale, and use of bait and the implications of existing regulation on lobster bait alternatives. Part III considers how three categories of legal challenges may affect alternative bait regulations, including challenges based on adequacy of agency authority, the dormant Commerce Clause, and preemption of state law by the Lacey Act. Finally, Part IV concludes by providing guidance to states considering whether and how to amend existing regulations to enable or restrict bait importation, sale, or use.

1 Bait Availability Challenges in the Northeast Lobster Industry

Lobster fishing in the Gulf of Maine has been booming, but warning signs are on the horizon. The amount and value of lobster landings have increased substantially since the 1980s, peaking at a value of almost \$600 million in 2016.² Today, lobster is among the most valuable fisheries in the U.S. and

¹ This study uses “fishermen” and “lobstermen” as gender-neutral terms in accordance with industry preferences. See Ret Talbot, *Maine is running out of lobster bait. Is salmon the answer?* NATIONAL GEOGRAPHIC (May 1, 2019), <https://www.nationalgeographic.com/animals/2019/04/salmon-farms-source-bait-maine-lobsters/> (noting preference).

² *State of Maine American Lobster Landings*, MAINE DEP’T MARINE RESOURCES (Feb. 20, 2020), <https://www.maine.gov/dmr/commercial-fishing/landings/documents/lobster.graph.pdf> (last visited Mar. 10, 2020).



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supports a supply chain valued at more than \$1 billion per year in Maine alone.³ Continuing strong lobster harvests is important for the economic vitality of New England coastal communities.

The lobster fishery has historically relied heavily on Atlantic herring. Roughly 70% of herring landings generally returned to the ocean as lobster bait—from 70,000-75,000mt per year.⁴ A substantial portion of this herring has been consumed by lobsters that are not caught, leading to the suggestion that New England fishing communities “are effectively farming lobsters.”⁵ According to one study, herring bait increases lobster catch by \$20 to \$25 million annually in Maine—a substantial economic benefit for lobstermen.⁶ The continued productivity of herring is therefore an important factor in the continued vitality of the Gulf of Maine lobster fishery.

The Gulf of Maine Atlantic herring fishery has collapsed in recent years. Annual catch limits ranged from 79,413mt to 107,587mt per year between 2008 and 2015.⁷ However, subsequent catches declined as a result of poor recruitment.⁸ By 2018, these problems resulted in management action to reduce catch. Following a stock assessment in 2018, the National Marine Fisheries Service (NMFS) implemented an in-season reduction of the catch limit change to 49,900mt, followed by further reduction to 15,065mt for 2019.⁹ The fishery is now considered overfished, and proposed catch limits for 2020-21 are further reduced to 11,571mt per year.¹⁰ Atlantic herring landings will not be sufficient to supply the lobster fishing industry until and unless the stock rebounds.¹¹

The collapse of the herring fishery poses a significant threat to the lobster industry.¹² Not only is herring increasingly rare, but its price has increased substantially. “Lobster stocks are booming, but because of the complete dependence of this fishery on herring bait, which has risen from \$15/tonne to nearly \$250/tonne since 1950, the cost of doing business now threatens the profitability of the

³ Jonathan H. Grabowski et al., *Use of Herring Bait to Farm Lobsters in the Gulf of Maine*, 5 PLOS ONE e10188, at 8 (2010) (“The lobster fishery currently accounts for a disproportionately large percentage of the total fishery value in the Gulf of Maine and was the single most valuable fishery in the United States between 1998 and 2004”); Bill Trotter, *Study: Lobster Supply Chain Contributes \$1B to Maine Economy Each Year*, BANGOR DAILY NEWS (Mar. 2, 2019, 5:50 PM).

⁴ Grabowski et al., *supra* note 3, at 1 (“Approximately 100,000 MT of herring are landed in New England each year . . . and about 70% of the herring landings (70-75,000 MT) go back into coastal waters as lobster bait”). See also Richard W. Ryan et al., *Bioeconomic Equilibrium in a Bait-Constrained Fishery*, 25 MAR. RES. ECON. 281, 282 (2010) (discussing linkage between lobster and herring fisheries).

⁵ *Id.*; ELLEN K. PIKITCH ET AL., LENFEST FORAGE FISH TASK FORCE, LITTLE FISH, BIG IMPACT: MANAGING A CRUCIAL LINK IN OCEAN FOOD WEBS 44-45 (2012) (“In the 1980s, a study of lobster gut contents determined fish bait comprised 80 percent of lobster diets.”).

⁶ Grabowski, *supra* note 1, at 8.

⁷ NORTHEAST FISHERIES SCI. CTR., 65TH NORTHEAST REGIONAL STOCK ASSESSMENT WORKSHOP (65TH SAW) ASSESSMENT SUMMARY REPORT 25 (2018).

⁸ Adjustments to the Atlantic Herring Specifications and Sub-Annual Catch Limits for 2019, 84 Fed. Reg. 2760, 2760-61 (Feb. 8, 2019).

⁹ *Id.*

¹⁰ Framework Adjustment 6 and the 2019–2021 Atlantic Herring Fishery Specifications, 85 Fed. Reg. 4932, 4933-34 (Jan. 28, 2020).

¹¹ PIKITCH ET AL., *supra* note 5, at 46.

¹² Talbot, *supra* note 1.

lobster fishery.”¹³ In this new world, lobstermen will no longer be able to use herring at all, while others will have to pay more for what little remains available.

Lobstermen will need to find alternatives to herring bait. For example, the Maine Department of Marine Resources (DMR) discussed importing Illinois-bred Asian carp, using artificial baits manufactured from “fish processing residue, blood, and other natural ingredients,” and using farmed salmon scraps as options at a 2019 meeting.¹⁴ While these and other baits could provide necessary relief to offset the loss of herring baits, they also present economic, environmental, and social challenges requiring consideration prior to widespread adoption.

- Maine currently prohibits out-of-state Asian carps as bait due to the risk of introducing viral hemorrhagic septicemia to its waters.¹⁵ These species are also known to be invasive in freshwater environments.¹⁶
- Potential challenges associated with manufactured artificial baits include limited success with prior artificial baits, bait price competitiveness, and questions about manufacturing viability.¹⁷
- While some lobstermen consider farmed salmon scraps to be a “large, local and unexploited source of bait,”¹⁸ others have long opposed salmon farms in their state because of their potential to cause environmental damage, including the risk of pathogen transfer.¹⁹

The Atlantic States Marine Fisheries Commission (ASMFC) has initiated action to address environmental concerns associated with alternative baits. At its October, 2018 meeting, the American Lobster Management Board held a lengthy discussion of the risks associated with interstate commerce in lobster bait.²⁰ Based on this discussion, the Board approved a motion to develop a resolution “to address the threats to Interstate commerce that is created by the use of lobster bait that is sourced from domestic and foreign locations that are known to harbor viral, bacterial, parasitic, and invasive agents that could pose a risk to lobster and other indigenous species.

¹³ PIKITCH ET AL., *supra* note 5, at 46.

¹⁴ William Hall, *Canadians try their own alternative lobster bait*, THE ISLAND INSTITUTE (April 11, 2019), <http://www.islandinstitute.org/working-waterfront/canadians-try-their-own-alternative-lobster-bait>.

¹⁵ ATLANTIC STATES MARINE FISHERIES COMM’N, [PROCEEDINGS OF THE AMERICAN LOBSTER MANAGEMENT BOARD OCTOBER 2018](#) 5 (Feb. 20, 2019); DMR, FRESHWATER LOBSTER AND CRAB BAIT CLASSIFICATION (July 23, 2018), <https://www.maine.gov/dmr/science-research/species/lobster/documents/Freshwater%20Lobster%20and%20Crab%20Bait%20List%207.23.18.pdf>.

¹⁶ Hall, *supra* note 14; Michelle Alice Hewitt, *Evaluating Alternative Bait Options for the Prince Edward Island Lobster Fishery in Lobster Fishing Area (LFA) 25, Atlantic Canada 15-16* (April 2018) (unpublished Executive MBA dissertation, University of Prince Edward Island), <https://www.islandscholar.ca/islandora/object/ir%3A22406/datastream/PDF/view> (“Using Asian carp as bait may supply lobster fishers with cheap bait, but it might also increase the risk of introducing diseases to marine organisms”); Erik Stokstad, *Biologists Rush to Protect Great Lakes from Onslaught of Carp*, 327 SCIENCE 932 (2010) (discussing invasion risk and policy interventions).

¹⁷ *Id.*; K. Masilian & N. Neethiselvan, *A review on natural and artificial fish bait*, 60 INT’L J. FISHERIES & AQUATIC STUD. 198, 199 (2018) (“[By the time of hauling,] artificial bait remained almost intact. However, artificial bait catch was approximately half of that of fish bait”); PIKITCH, *supra* note 5, at 46.

¹⁸ Talbot, *supra* note 1.

¹⁹ Talbot, *supra* note 1; *see also* Hewitt, et. al *supra* note 16, at 17-18 (Risks associated with salmon farms include disease such as infectious salmon anemia which “could last in dead salmon...up to five days post mortem...”).

²⁰ ASMFC, *supra* note 15, at 2-10.

Such measures must ensure that the use of such baits will be prohibited by December, 2020.”²¹ A working group thereafter developed the resolution, which was to be offered for a vote at the fall, 2019 meeting of the Board.²² This resolution will require states to consider whether and how to modify their existing legal limitations on commerce in lobster bait to promote a regionally consistent approach to bait importation, sale, and use.

2 State Regulation of Bait Importation, Sale, and Use

States are the primary regulators of the importation, sale, and use of lobster bait. States seek to protect the environment and economy from harm caused by bait through permitting and licensing requirements for bait importation and sale and through restrictions on the use of selected species as bait.²³ Specifically, they may require that bait dealers obtain a license or permit to sell any or certain types of bait, restrict the species that may be imported, sold, or used for bait, or both. For example, North Dakota has adopted an “all of the above” approach: sale of “minnows or other live bait at wholesale or retail” requires a license from the Department of Fish and Game;²⁴ fishermen can only use species that qualify as “legal live bait” and “legal dead bait” for use in particular bodies of water, and state law prohibits the importation of any “live aquatic organisms” into the state.²⁵ North Dakota thus is a good example of a comprehensive approach to bait regulation that may be a useful comparison for approaches adopted by New England states. This section discusses how each coastal New England state regulates the bait trade.

2.1 Connecticut

Connecticut vests the Commissioner of the Department of Energy and Environmental Protection (DEEP) with broad authority to “provide for the importation of fish and wildlife, and provide for the protection, propagation and distribution of such imported or native fish and wildlife.”²⁶ This general authority is supplemented by specific limits on the importation of harmful species and the bait trade.

A permit from the Commissioner is required to “import or introduce into the state, or possess or liberate therein” any live fish or other organisms.²⁷ Regulations implementing this authority apply to

²¹ *Id.* at ii, 7, 10.

²² ASMFC, [PROCEEDINGS OF THE AMERICAN LOBSTER MANAGEMENT BOARD APRIL 2019](#) 18 (Oct. 28, 2019) (providing overview of working group progress and plans).

²³ See *Maine v. Taylor*, 141 U.S. 131, 140-41 (1986) (stating the purpose of the law is “that live baitfish imported into the State posed two significant threats to Maine’s unique and fragile fisheries”); see also Fedrika Moser and Merrill Leffler ed., *Preventing Aquatic Species Invasions in the Md-Atlantic*, Maryland Sea Grant, 13, Dec. 2, 2009 (“unregulated, or at best, poorly regulated species imports, sales and distribution of non-native species have been major factors in coastal bioinvasions...”).

²⁴ N.D. CENT. CODE § 20.1-06-14.

²⁵ N.D. DEP’T FISH & GAME, NORTH DAKOTA FISHING PROCLAMATION 2020-2022 §§ (A)(2-1), (A)(2-2); see also N.D. ADMIN. CODE 30-03-01.1-03 (adopting current proclamation as regulatory standard).

²⁶ CONN. GEN. STAT. § 26-3.

²⁷ CONN. GEN. STAT. § 26-55(a) (“The commissioner may totally prohibit the importation, possession, introduction into the state or liberation therein of certain species which the commissioner has determined may be a potential threat to humans, agricultural crops or established species of plants, fish, birds, mammals, reptiles, amphibians, or invertebrates”).

both fish and fish eggs and contain a number of limitations, including a separate permit for each shipment, health certification, and prohibitions on diseased stock.²⁸ Special restrictions apply to some species, including but not limited to various species of Asian carp.²⁹ Thus, imports of live carp or eggs is prohibited, but imports of non-listed species are possible with a permit. However, import of dead fish or processed fish parts are not covered by these restrictions.

State statutes separately address bait sales, but bait restrictions do not apply to lobster bait. Under Connecticut law, no person “shall possess for the purpose of sale, sell or offer for sale any bait species” without a permit from the Commissioner, who is directed to issue regulations defining approved bait species.³⁰ DEEP regulations list the inland and marine bait species that can be sold by licensed bait dealers, who must keep records about what they sell.³¹ However, the regulations do not apply “to fish used to bait lobster pots.”³² As a result, no permit is required to possess or sell lobster bait.

2.2 Maine

Maine law specifically restricts the use of bait for lobster and crab fishing.³³ The statutes authorize the Department of Marine Resources (DMR) to maintain lists of freshwater and marine organisms and harvest locations that are acceptable or prohibited for use as lobster or crab bait.³⁴ DMR is also authorized to regulate the use of “alternative bait”—defined as bait that does not originate from the ocean.³⁵ DMR regulations prohibit the bait use of any organism not listed as approved species.³⁶ DMR has approved a variety of marine and freshwater fish species for lobster and crab bait,³⁷ but several potential alternative bait options are prohibited, including Asian carp not caught in Maine.³⁸ Processed baits and scraps are also strictly limited: under state law, the use of offal, including “the carcass, waste parts, renderings or remains of a wild or domesticated animal that is not a marine organism” is prohibited (except for approved freshwater organisms and hides).³⁹ In addition, DMR regulations prohibit the introduction of any “dead salmonid fish species or salmon remains, parts or

²⁸ CONN. AGENCIES REGS. § 26-55-1.

²⁹ *Id.*

³⁰ *Id.* § 26-45.

³¹ CONN. AGENCIES REGS. § 26-142a-12.

³² *Id.*

³³ Freshwater bait regulations, which are also comprehensive, are separately administered by the Department of Game and Inland Fisheries. ME. REV. STAT. tit. 12, §§ 10001 (defining baitfish); 12551-12556 (governing importation, sale, and use of bait in inland waters).

³⁴ ME. REV. STAT. tit. 12, § 6432-A.

³⁵ ME. REV. STAT. tit. 12, § 6175.

³⁶ CODE ME. R. § 13-188-25.11; *see also* *Maine Lobster and Crab Bait Information*, DMR, <https://www.maine.gov/dmr/science-research/species/lobster/bait2019.html> (maintaining lists).

³⁷ DMR, MAINE LOBSTER AND CRAB BAIT CLASSIFICATIONS (June 28, 2019), <https://www.maine.gov/dmr/science-research/species/lobster/documents/Marine%20Lobster%20and%20Crab%20Bait%20List%206.28.2019.pdf>; DMR, FRESHWATER LOBSTER AND CRAB BAIT CLASSIFICATION (July 23, 2018), <https://www.maine.gov/dmr/science-research/species/lobster/documents/Freshwater%20Lobster%20and%20Crab%20Bait%20List%207.23.18.pdf>.

³⁸ DMR, FRESHWATER LOBSTER AND CRAB BAIT CLASSIFICATION (July 23, 2018), <https://www.maine.gov/dmr/science-research/species/lobster/documents/Freshwater%20Lobster%20and%20Crab%20Bait%20List%207.23.18.pdf> (last visited Mar. 16, 2020).

³⁹ ME. REV. STAT. tit.12, § 6432-A.

viscera” into Maine coastal waters.⁴⁰ These prohibitions restrict the use of artificial baits to non-salmonid baits produced with approved marine and freshwater species.

Maine law contains separate, extensive provisions governing import of live species. A permit from DMR is required to import live marine species,⁴¹ while state law prohibits importation of “any live fish, including smelts, that are commonly used for bait fishing in inland waters.”⁴² A permit from the Department of Inland Fisheries and Wildlife (DIFW) is required to import other species of non-marine live wildlife.⁴³ DIFW also regulates commercial harvest of freshwater species, including species used for lobster bait, such as white sucker (*Catostomus commersonii*).⁴⁴ Thus DMR and DIFW each have authority relevant to the importation of bait species.

As in the import context, DMR and DIFW regulate bait sales in the marine and freshwater contexts, respectively. DMR is specifically authorized to require licenses for marine bait sales,⁴⁵ and any person who purchases and sells bait for other than their own use, including harvesters who sell bait for personal use, must be licensed as a “lobster/crab bait dealer.”⁴⁶ A permit from DIFW is required to sell “live smelt or baitfish”—a group of freshwater species defined by statute—from a fixed location.⁴⁷ Thus, the type of permit(s) required depends on the types of bait sold.

2.3 Massachusetts

Massachusetts law directs the Division of Marine Fisheries (DMF) to manage marine bait. It requires a permit, jointly issued by DMF and the Department of Public Health, to “acquire, handle, store, distribute, process, fillet, ship or sell raw fish, whether frozen or unfrozen in bulk or for resale.”⁴⁸ DMF regulations implementing this section require a bait dealer permit to possess and sell bait, which is broadly defined to include all marine organisms.⁴⁹ These regulations do not limit what baits may be used or their geographic origin; however, bait dealers must comply with other agencies’ regulations when conducting activities not regulated by DMF, including in the sale of freshwater species.

Freshwater bait fish are separately regulated by the Division of Fish and Wildlife (MassWildlife). The relevant regulations define four freshwater species as “commercial baitfish;” only these species can be legally imported and sold only by a licensed dealer.⁵⁰ Dealers must obtain a permit from

⁴⁰ CODE ME. R. § 13-188-24.23.

⁴¹ CODE ME. R. § 13-188-24.03.

⁴² ME. REV. STAT. tit. 12, § 12556. Maine’s freshwater bait restrictions are long-standing, as imports were prohibited in 1959 and the list of approved species in 1986. Frank O. Forst & Joan G. Trial, *Factors Affecting Baitfish Supply and Retail Prices Paid by Maine Anglers*, 13 N. AMER. J. FISHERIES MGMT. 586, 587 (1993).

⁴³ ME. REV. STAT. tit. 12, § 12152, CODE ME. R. § 09-137-7.01.

⁴⁴ CODE ME. R. § 09-137-2.02; Megan Begley et al., *Modeling White Sucker (Catostomus commersonii) Populations to Assess Commercial Harvest Influence on Age Structure*, 33 J. FRESHWATER ECOL. 413, 414 (2018) (noting lobster bait use of species).

⁴⁵ ME. REV. STAT. tit. 12, § 6526.

⁴⁶ CODE ME. R. § 13-188-24.23.

⁴⁷ ME. REV. STAT. tit. 12, §§ 10001 (defining “baitfish”); 12551-A (requiring permit).

⁴⁸ See MASS. GEN. LAWS ch. 131, § 1A.

⁴⁹ 322 MASS. ADMIN. CODE § 7.01.

⁵⁰ 321 MASS. ADMIN. CODE § 4.01.

MassWildlife to import any species of (freshwater⁵¹) fish, whether in live or dead forms, and some species (including grass carp) cannot be permitted.⁵² However, no import or sale permit is needed to sell “any baitfish or parts thereof which are canned, pickled or otherwise commercially preserved by a method other than by freezing, and lawfully imported or propagated.”⁵³

2.4 New Hampshire

New Hampshire authorizes Fish and Game (NHF&G) to administer a range of bait restrictions. It is authorized to “adopt and enforce rules relative to bait dealers dealing in live fish or aquatic invertebrates.”⁵⁴ While included in a section specific to “freshwater fishing bait,” fish are defined to include marine species, and nothing in the statute excludes marine bait.⁵⁵ As a result, the terms of these regulations appear to apply to marine bait dealers. Bait dealers must obtain a license to “sell, or offer to sell live fish or aquatic invertebrates for bait.”⁵⁶ They must obtain a separate permit to import “fish of any description.”⁵⁷ Only licensed bait dealers with a bait importation permit may import fin fish for bait, and these imports are limited to listed species and subject to geographic and other conditions.⁵⁸ New Hampshire bait imports are also subject to separate wildlife importation laws. A permit from NHF&G is required to “import, possess, sell, exhibit, or release any live marine species or wildlife [including freshwater fish], or the eggs or progeny thereof,” unless the department has placed the species on an approved list.⁵⁹ “[M]arine species originating in the western portion of the North Atlantic Ocean and connected saltwater bays and estuaries, except anadromous and catadromous species” do not require a permit.⁶⁰ However, other species are prohibited from import, including Asian carps.⁶¹ Other species requiring a permit require health certification and may be subject to additional restrictions based on their geographic origin.⁶² Together, these provisions constrain the importation and sale of live species for use as bait; however, they do not apply to dead or frozen baits.

New Hampshire law establishes more limited constraints on the use of baits in marine fishing. NHF&G marine fishing regulations contain prohibitions on the use of carp or goldfish as live bait in any waters of the state.⁶³ As for bait imports, these limitations only apply to live fish, so frozen or other processed or artificial baits are not regulated.

⁵¹ MASS. GEN. LAWS ch. 131, § 1 (defining “fish” as those found in “inland waters”).

⁵² 321 MASS. ADMIN. CODE §§ 2.15 (requiring permit), 9.01 (listing exempted and prohibited species).

⁵³ *Id.*

⁵⁴ N.H. REV. STAT. § 214:35.

⁵⁵ *Id.* §§ 207:1 (defining “fish”), 214:34 – 214:35.

⁵⁶ *Id.* § 214:34.

⁵⁷ *Id.* § 214:34-d.

⁵⁸ N.H. ADMIN. CODE fis 502.07; *Id.* fis. 1104.04 (bait dealer licensing); fis. 1104.07 (bait fish import permitting).

⁵⁹ *Id.* § 207:14.

⁶⁰ N.H. ADMIN. CODE fis 803.03.

⁶¹ *Id.* fis. 803.04.

⁶² *Id.* fis. 803.08-10

⁶³ N.H. REV. STAT. § 211:16 (additional restrictions apply to fishing for cusk); *see also id.* § 207:1 (defining “marine species” and “wildlife”).

2.5 Rhode Island

Rhode Island statutes prohibit the import, transport, culture, or sale of any “exotic species of baitfish” specified by the Director of the Department of Environmental Management (RIDEM).⁶⁴ RIDEM is required to establish “a list of approved native baitfish and a list of prohibited non-native or exotic baitfish,” and the prohibitions do not take effect until RIDEM completes this list.⁶⁵ The RIDEM list of species prohibits certain species of fish, including grass and amur carp (but not other Asian carp species), but exempts all other species from permitting.⁶⁶ In addition, RIDEM regulations prohibit the “importation, sale, or possession of any variety of nonnative fish . . . for use as bait in the fresh waters of the State.”⁶⁷ However, this prohibition does not apply to importation, sale, or use of these species for marine bait. The only marine species subject to similar restrictions are “non-indigenous (non-native) Horseshoe Crab species,” which cannot be possessed by anyone or imported by a fish or shellfish dealer in either the cooked or uncooked (frozen) state.⁶⁸

Rhode Island law does not require a bait dealer license program, nor has RIDEM established such a program to date. While harvested fish can only be sold to a licensed dealer,⁶⁹ the licensing program does not include a specific category for bait dealers, nor do RIDEM regulations place restrictions on the sale of dead or processed baits.

2.6 Comparison of State Bait Provisions

While each coastal New England state has established some restrictions on the importation, sale, and use of bait, these provisions differ substantially. This section highlights some of the key similarities and differences among state approaches.

The most important distinction among states from the perspective of lobster bait relates to whether states have established a bait regulatory regime specifically for marine species. Of coastal New England states, only Maine has created a comprehensive regime for marine bait that includes both licensing and species approvals, while Massachusetts has more limited program for marine bait seller licensing. In other states, bait management is administered by the agency or division responsible for freshwater fishing. While some freshwater bait provisions apply equally to marine baits in these states (e.g., New Hampshire), the associated provisions often appear targeted to freshwater use. For example, many bait restrictions only apply to live bait and therefore will not apply to use of packaged or frozen baits for lobster fishing. As a result, states without focused regulations for marine bait may require new or amended regulations to address risks associated with marine use of bait species—an increasingly important issue given that freshwater fish like Asian carps have been proposed for widespread use as marine bait.

⁶⁴ R.I. GEN. LAWS § 20-1-28.

⁶⁵ R.I. GEN. LAWS § 20-1-28.

⁶⁶ 250 R.I. CODE R. § 40-05-3.17.

⁶⁷ 250 R.I. CODE R. § 60-00-10.6.

⁶⁸ *Id.* §§ 90-00-7.10 (import) 90-00-5.10 (possession).

⁶⁹ *Id.* § 90-00-7.7.

New England states have established a range of methodologies for restricting the use of potentially harmful baits. While every state restricts or prohibits the importation or possession of some species due to biosecurity or invasion risk, these provisions differ in approach and breadth. While Maine has established a “clean list” approach in which baits must be approved by DMR to be used for lobster fishing—and totally prohibits import of species commonly used as bait in fresh waters—most others allow importation of any bait that is not prohibited—a reactive, “dirty list” approach that has been shown to be less effective in preventing potential harm from invasive species and associated pests and pathogens.⁷⁰

In addition to species-based limitations, states differ in their approach to processed baits and geographic origin. Several state restrictions apply only to live organisms, while others regulate the sale and use of dead and processed baits. Regulations on the use of dead and processed baits are more relevant to how bait may be imported for use in lobster fishing and may be warranted due to the risk of introducing pathogens or associated live material used in packaging materials.⁷¹ Two states—Maine and New Hampshire—supplement species-based restrictions with geographic restrictions on bait use. These provisions result in more granular restrictions than are offered by species-based limitations alone. Differences in bait restriction methodologies from state to state may inhibit creation of consistent regional limitations on bait usage.

Finally, states differ in their licensing requirements for bait vendors. While most states require a permit to sell bait, these requirements may not apply to lobster bait vendors. Instead, they may be targeted at freshwater bait vendors, whether for jurisdictional or practical reasons. The states with marine bait dealer licensing requirements may be best positioned to understand not only who is selling bait for use in the lobster industry, but also what species and types of baits that lobstermen are using and to inspect bait vendors. As a result, states concerned with introduction of alternative lobster baits may consider developing more robust marine bait seller registration or reporting requirements in the future.

3 Legal Challenges to State Bait Regulation

State laws that regulate the import, sale, or use of bait may face several types of legal challenges. This section reviews past challenges to these regulatory systems, including allegations of inadequate authority for the regulations under state statutes; violations of the Commerce Clause of the Constitution,⁷² and preemption of state laws by federal statutes.⁷³ States may be able to minimize the

⁷⁰ See Eric V. Hull, *Species: Building Coastal Resilience Through Integrated Ecosystem Management*, 25 GEO. INT'L ENVTL. L. REV. 51, 72 (2012) (arguing that the “dirty list” approach is inadequate to prevent harm); Justin Bonebrake, *Carpe Lacum: Asian Carp and the Great Lakes*, 24 COLO. NAT. RES., ENERGY & ENVTL. L. REV. 459, 483 (2013) (“Under [the dirty list] approach, the Secretary of Interior lists species as injurious only when she discovers that a species is already causing harm to fish, wildlife, or other interests somewhere in the United States. This means that although a species might make the “dirty list,” it will have already done its damage.”).

⁷¹ Moser, *supra* note 80 (“bait [] packaging can be a vector of non-native species”).

⁷² U.S. CONST. art. I, § 8, cl. 3 (gives power to Congress “to regulate commerce with foreign nations, and among the several states, and with the Indian tribes”).

⁷³ U.S. CONST. art. VI (“the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the Unites States, shall be the supreme Law of the Land; and the Judges

chance that new or amended bait regulations are overturned by considering these examples when developing regional approaches to lobster bait management.

3.1 Challenges to Agency Authority

State bait regulations must be based on statutory authority. Administrative agencies can only exercise authority provided by the legislature.⁷⁴ Therefore, agency regulations not authorized by statute are *ultra vires*—“beyond the powers” of the agency—and not legally enforceable.⁷⁵ Where statutes do not authorize agency action, affected users may challenge regulations in court.

State regulations relevant to bait management have been challenged in the past. In *United States v. Gehl*, the defendant caviar sellers challenged a state regulation banning the sale of processed salmon eggs for human consumption if they came from certain waterbodies within the state.⁷⁶ They argued, in part, that the regulation “exceeded the permissible scope of [the Department of Environmental Conservation’s] regulatory authority”⁷⁷ because the state Environmental Conservation Law only authorized the DEC “to regulate the sale of ‘raw or unprocessed Pacific salmon eggs’ and ‘viable eggs of any species of the [salmon] family,’” and processed eggs do not fit into either category.⁷⁸ The court did not agree: although the defendants identified statutory provisions that referred only to raw fish eggs, the regulation was authorized by a different, broader statutory section, which directed DEC to “adopt any measures or regulations with respect to the taking, transportation, sale, offering for sale or possession of native fish. . . it may deem necessary in the public interest to prevent the introduction or spread of such disease.”⁷⁹ The court determined that this section was intended to offer DEC broad authority and that its language covered both processed and unprocessed salmon eggs.⁸⁰ Therefore, the court upheld the DEC regulation.

Gehl illustrates the importance of statutory authority to support agency regulations. In many states, relevant statutes provide one or more agencies—usually fish and game departments or marine fisheries departments—with broad authority to make regulations and take other actions necessary to manage the state’s biological resources. Most states have enacted additional provisions authorizing or directing those agencies to manage the bait trade and/or the import and sale of live and dead fish. As discussed in section 2, however, these authorities may be focused on freshwater species and uses, may be limited to live (rather than dead or processed) baits, and may be promulgated by agencies or departments whose jurisdiction is limited to inland waters. As a result, these provisions rarely

in every State shall be bound thereby, any Thing in the Constitution or Laws of any state to the Contrary notwithstanding”).

⁷⁴ John Gedid, *Administrative Procedure for the Twenty-First Century: An Introduction to the 2010 Model State Administrative Procedure Act*, 44 ST. MARY’S L.J. 241, 299 (2012).

⁷⁵ Jim Rossi, *Hamstring State Agency Authority to Promulgate Rules: A Questionable Way to Improve Environmental Regulation*, 29 ENVTL. L. REP. 10735, 10745 (1999) (“[A]gencies must [be able to cite to] clear statutory authority to adopt new rules and maintain existing regulations.”).

⁷⁶ 852 F. Supp. 1150 (N.D.N.Y. 1994).

⁷⁷ *Id.* at 1161.

⁷⁸ *Id.* at 1163.

⁷⁹ *Id.* at 1165 (citing N.Y. ENVTL. CONSERV. LAW § 11-0325(1)).

⁸⁰ *Id.*

address marine baits explicitly, and only Maine authorizes marine fisheries regulators to control the use of freshwater or other non-marine organisms for lobster bait. Agencies in other states that wish to develop alternative lobster bait programs thus must identify which agency(ies), if any, have the necessary statutory authority for the proposed policy action and whether new legislation would be required to provide a sound basis for regulatory action.

3.2 Dormant Commerce Clause Challenges

State bait regulations may be vulnerable to “dormant” commerce clause challenges. The Commerce Clause of the U.S. Constitution empowers Congress to “to regulate commerce with foreign nations and among the several states, and with the Indian tribes.”⁸¹ The Supreme Court has found that by giving the federal government authority over interstate commerce, the Commerce Clause necessarily prohibits state regulations that interfere significantly with the national economy.⁸² This limitation on state regulation of commerce is known as the “dormant” Commerce Clause.⁸³

A state regulation that impermissibly infringes on interstate commerce will be held unconstitutional. To determine whether a state law violates the dormant commerce clause, a court evaluates whether the law is affirmatively discriminatory or facially neutral.⁸⁴ Affirmatively discriminatory laws are upheld only where the state can show that the law serves a legitimate governmental purpose and the purpose could not be achieved with less discriminatory means.⁸⁵ In practice, statutes rarely satisfy this test.⁸⁶ Facially neutral laws face lesser scrutiny because incidental burdens on interstate commerce may be unavoidable as states enact new laws, especially when a state legislates to ensure the safety and health of its citizens.⁸⁷ Courts will strike down a statute creating incidental burdens on interstate commerce only if those burdens are “clearly excessive in relation to the putative local

⁸¹ U.S. CONST. art. I, § 8, cl. 2.

⁸² *American Trucking Associations, Inc. v. Scheiner*, 483 U.S. 266, 268 (1987); 5 U.S.C. § 551 (noting the purpose of the dormant commerce clause is to prevent states from enacting laws that may discriminate against interstate commerce in a manner that promotes a competitive advantage for local state business); *Philadelphia v. New Jersey*, 437 U.S. 617, 623 (1978) (“restraints appear nowhere in the words of the Commerce Clause, but have emerged gradually in the decisions of [the Supreme Court] giving effect to its basic purpose”).

⁸³ *Davrod Corp. v. Coates*, 971 F.2d 778, 787 (1st Cir. 1992).

⁸⁴ *Id.* A law is affirmatively discriminatory when on its face it clearly discriminates against a certain class of individuals. *Id.* “Facially neutral laws [] regulate evenhandedly with only incidental effects on interstate commerce.” Laura T. Gorjanc, *Combating Harmful Invasive Species Under the Lacey Act: Removing the Dormant Commerce Clause Barrier to State and Federal Cooperation*, 16 *FORDHAM L. REV.* 111, 127 (2004).

⁸⁵ *Hughes v. Oklahoma*, 441 U.S. 322, 336 (1979) (“[When] discrimination against commerce...is demonstrated, the burden falls on the State to justify it both in terms of the local benefits flowing from statute and the unavailability of nondiscriminatory alternatives adequate to preserve the local interests at stake”); *Maine v. Taylor*, 477 U.S. 131, 138 (1986) (to determine if a state has exceeded its authority in its statute, the court determines whether the burden is incidental or affirmatively discriminatory); *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970).

⁸⁶ *See, e.g.* *Hughes*, 441 U.S. at 337-38; *New Jersey*, 437 U.S. 617, 628 (1978) (New Jersey law restricting certain types of waste from entering the state is “squarely within the area that the Commerce Clause puts off limits to state regulation”); *American Trucking Associations, Inc., v. Scheiner*, 483 U.S. 266, 296 (1987) (Pennsylvania tax on out-of-state truckers for use of state highways unconstitutional); *United States v. Earp*, 307 F.Supp.2d 760, 763 (D. S.C. 2003) (South Carolina prohibiting sale of white bass regardless of where the fish was originally caught or purchased was unconstitutional because less discriminatory means were available to achieve the same result).

⁸⁷ *Id.*

benefits.”⁸⁸ Laws and regulations affecting interstate commerce—including limits on the bait trade—must satisfy the relevant test in order to pass constitutional muster.

State baitfish importation laws are often affirmatively discriminatory and have faced dormant Commerce Clause on several occasions. In *Hughes v. Oklahoma*, the defendant challenged his conviction for violating an Oklahoma statute prohibiting the export of minnows for commercial purposes, arguing that the export ban violated the dormant Commerce Clause.⁸⁹ The Court determined that conserving wild minnow populations is a legitimate local purpose, but the law was unconstitutional because it did not use the least restrictive measures to achieve that purpose.⁹⁰ As the court explained: “[t]he State places no limits on the numbers of minnows that can be taken by licensed minnow dealers; nor does it limit in any way how these minnows may be disposed of within the State. Yet it forbids the transportation of any commercially significant number of natural minnows out of the State for sale.”⁹¹ This decision illustrates that statutes affirmatively burdening interstate commerce must be “narrowly tailored” so that they avoid restrictions on commerce if possible.

The Supreme Court has upheld one affirmatively discriminatory bait importation statute in *Maine v. Taylor*.⁹² Robert Taylor was convicted after violating a Maine law prohibiting importation of baitfish.⁹³ The Supreme Court upheld his conviction against a dormant commerce challenge. Maine provided evidence that its law responded to a legitimate state interest because importing live baitfish posed significant threats to Maine’s fisheries, including by placing wild fish at risk of contracting novel diseases and by introducing nonnative species into the environment.⁹⁴ The Court agreed that the law was meant to proactively prevent “potentially irreversible environmental damage” and that the State should not have to wait “until the scientific community agrees on what disease organisms are or are not dangerous before it acts to avoid such consequences.”⁹⁵ Maine also showed that there was no satisfactory way to ensure live bait shipments would not be infected with parasites or invasive species.⁹⁶ The Supreme Court in *Taylor* thus upheld the law because it met both elements of the test: preventing invasion is a legitimate state interest and there was no less restrictive means of accomplishing that goal. *Hughes* and *Taylor* show that the courts have been sympathetic to wildlife management as a legitimate state interest. However, they have required evidence to support regulations protecting that interest.

⁸⁸ *Id.* (citing *Hughes*, 441 U.S. at 336).

⁸⁹ *Hughes*, 441 U.S. at 339.

⁹⁰ *Id.* at 337-38.

⁹¹ *Id.* at 338.

⁹² 477 U.S. 131 (1986).

⁹³ 477 U.S. at 132 (noting that Taylor arranged for the importation of 158,000 live golden shiners to be delivered from out of state to his Maine bait shop. Golden Shiners are not native to Maine waters).

⁹⁴ *Id.* at 141.

⁹⁵ *Id.* at 148.

⁹⁶ *Id.* at 151; see also Timothy J. Slattery, *The Dormant Commerce Clause: Adopting a New Standard and a Return to Principle*, 17 WM. & MARY BILL OF RTS. J. 1243, 1268 (2009) (“The Court found the local purposes ‘could not adequately be served by available nondiscriminatory alternatives’ and so upheld the statute as constitutional within the Dormant Commerce Clause”).

Farmed salmon scraps provide a useful example of how the dormant commerce clause could play out in the context of alternative lobster bait. Salmon scrap bait could use Maine-reared fish, or the bait could be imported across state lines or from foreign countries.⁹⁷ Maine currently prohibits any use of salmon scraps in lobster bait.⁹⁸ A law that authorized the use of local scraps in Maine would affirmatively discriminate against out-of-state producers, and thus would require the state to show that there is no less-intrusive means of addressing the risks of import. Scientific advances since the Supreme Court decided *Maine v. Taylor* may make this difficult. In 1986, Maine showed that it could not effectively prevent introduction of harmful species or diseases through testing, but import conditions such as health certification—a common condition on wildlife importation today—could now be able to achieve state goals without unduly burdening commerce. If so, states would be required to use such permit conditions in lieu of outright import prohibitions. States other than Maine have no local salmon industry to benefit, which could avoid some, but not all, dormant Commerce Clause concerns: where salmon scraps would compete with bait produced in-state, salmon limits could face dormant Commerce Clause challenges. Thus, all states need to use caution when restricting the origin or commerce in alternative lobster bait.⁹⁹

3.3 Federal Preemption Challenges Based on the Lacey Act

State bait restrictions have been challenged based on alleged interference with federal law. The Constitution provides that federal law generally takes precedence over and may preempt state law.¹⁰⁰ Federal law can preempt state law explicitly (“express preemption”), by “occupying the field” (“field preemption”), or through conflict with state law (“conflict preemption”).¹⁰¹ A state bait law or regulation that is preempted under any of these three avenues is unenforceable.

The federal Lacey Act could preempt some state efforts to authorize alternative lobster bait. In addition to “aid[ing] the State[s] in enforcing their own laws concerning wildlife”¹⁰² by converting

⁹⁷ Hewitt, *supra* note 29, at 17-18 (“Canada is one of the major producers of farmed Atlantic Salmon in the world and the largest producer and North America”).

⁹⁸ DMR, MAINE LOBSTER AND CRAB BAIT CLASSIFICATIONS (June 28, 2019), <https://www.maine.gov/dmr/science-research/species/lobster/documents/Marine%20Lobster%20and%20Crab%20Bait%20List%206.28.2019.pdf>.

⁹⁹ New Hampshire’s current law authorizing the use of “marine species originating in the western portion of the North Atlantic Ocean and connected saltwater bays and estuaries” without a permit may provide an example of a geographical bait limitation that seeks to allow baits posing lower biosecurity risks while requiring a permit for the introduction of bait from outside the approved area. *See* footnote 60 and accompanying text.

¹⁰⁰ U.S. CONST. art. VI, § 2, cl. 2 (the “Supremacy Clause”). The Supremacy Clause prohibits states from interfering with the federal government’s exercise of its constitutional powers. *See Ex parte Siebold*, 100 U.S. 371, 392 (1880) (“The Constitution and laws of the latter are supreme law of the land, and when they conflict with state laws, they are of paramount authority and obligation.”).

¹⁰¹ *Farina v. Nokia, Inc.* 625 F.3d 97, 115 (3rd Cir. 2010).

¹⁰² Laura T. Gorjanc, *Combating Harmful Invasive Species Under the Lacey Act: Removing the Dormant Commerce Clause Barrier to State and Federal Cooperation*, 16 FORDHAM ENVTL. L. REV. 111, 117 (2004) (quoting S. REP. NO. 97-123, at 2 (1981)); *see also id.* at 119 (quoting H.R. 474, 56th Cong., 1st Sess. at 2 (1900) (“This bill is intended to begin where the State laws leave off. The State laws can have no extraterritorial force and the national laws cannot operate in a single State. But interstate commerce is wholly in the control of the Federal Government. Where the States are powerless to protect themselves the National Government has ample power. This bill goes to the very root of this matter by forbidding interstate commerce in such animals and birds when killed or caught in violation of local laws.”)).

violation of state wildlife laws into a federal offence,¹⁰³ the Lacey Act restricts the movement of wildlife in trade. It establishes a list of “injurious wildlife” that cannot be imported into the United States or “ship[ped] between” the continental United States, the District of Columbia, Hawaii, the Commonwealth of Puerto Rico, or any possession of the United States.”¹⁰⁴ The U.S. Fish and Wildlife Service (FWS), which administers the Act, is authorized to and has issued regulations expanding the list of injurious wildlife, including for live fish and viable eggs of certain harmful fish species—including nine species of Asian carps.¹⁰⁵ The Act “specifically permits more restrictive state laws controlling ‘injurious’ wildlife,”¹⁰⁶ but state law would conflict with and be preempted by the Lacey Act if it authorizes otherwise-unlawful import or shipment of injurious wildlife.¹⁰⁷ For example, a state may prohibit the sale or possession of Asian Carp in addition to its shipment, thereby extending the Lacey Act; however, it cannot authorize import of the species from international sources. Thus, understanding the extent of Lacey Act restrictions on Asian carp shipments is important to determine whether states can authorize interstate shipments of these species for use as lobster bait.

While the Lacey Act prohibits certain trade in listed wildlife, the courts have recently held that it does not apply to most interstate commerce. In *United States Association of Reptile Keepers v. Zinke*, the D.C. Circuit Court of Appeals overturned FWS’s interpretation that “shipments between” the continental U.S. applies to all interstate commerce.¹⁰⁸ Instead, it held that the shipment clause “does not speak to shipments within the continental United States itself.”¹⁰⁹ As a result, shipments of injurious wildlife species, such as Asian carp, are not prohibited by federal law, and are appropriately regulated, if at all, by states. Thus, states can authorize interstate transportation, sale, and use of Asian carp without facing preemption challenges.

4 Conclusion

There is a critical need to identify lobster bait sources that can be used as alternatives to Atlantic herring. Alternative baits, such as Asian Carp, farmed salmon scraps and artificial bait, may introduce new pathogens or harmful species into the environment or have other unforeseen impacts. Responding to this threat, the Atlantic Lobster Management Board has begun work to develop a recommendation calling for a more consistent regional approach to alternative bait. This

¹⁰³ 16 U.S.C. § 3372 (making it unlawful for anyone to “import, export, transport, sell, receive, acquire, or purchase any fish or wildlife or plant taken, possessed, transported or sold in violation” of state law).

¹⁰⁴ 18 U.S.C. § 42.

¹⁰⁵ 16 C.F.R. § 16.13.

¹⁰⁶ Eric Biber, *Exploring Regulatory Options for Controlling the Introduction of Non-Indigenous Species to the United States*, 18 VA. ENVTL. L.J. 375, 405 n. 177 (1999) (citing 18 U.S.C. §§ 3378(a), 3372).

¹⁰⁷ The Lacey Act is unlikely to preempt state law expressly or through field preemption because the Act was generally intended to support, not diminish, state power to make or enforce wildlife law. See Joel T. Bowers, *Little Leviathans: Michigan’s Battle Against Invasive Species in the Great Lakes*, 52 WAYNE L. REV. 1249, 1271 (2006) (“In the Lacey Act, Congress made it a federal crime for anyone to possess or trade illegal species, in violation of state laws. It follows that Congress plainly intended for the states to enact their own legislation prohibiting introduction of nuisance species.”).

¹⁰⁸ 852 F.3d 1131, 1138 (D.C. Cir. 2017) (upholding *United States Association of Reptile Keepers v. Jewell*, 103 F.Supp.3d 133, 146 (D.D.C. 2015)).

¹⁰⁹ *Id.* at 1138.

study supports efforts to address the biosecurity and other risks of alternative lobster baits by reviewing state laws and regulations governing bait importation, sale, and use; and by identifying potential legal challenges to future state bait management restrictions. It finds that New England states have established varied approaches to lobster bait use. While Maine requires approval for the use of any lobster bait, other states have adopted more limited bait management programs. These may focus more directly on use of bait in freshwater angling rather than commercial marine fisheries; on live rather than dead, packaged, or manufactured bait; and adopt different permitting regimes for bait imports and bait vendor licensing. Attempts to increase regional consistency will need to account for these and other differences from state to state.

State bait management reforms may benefit from a consideration of the three potential legal challenges identified in this study. First, bait restrictions depend on the responsible agency's statutory powers, which may be limited to inland waters or in other ways. New states lobster bait provisions must respect jurisdictional limitations, and in some cases state legislation may be required to authorize alternative bait programs—an approach used in Maine. Second, bait management regulations often affect interstate commerce and may be challenged as violations of the dormant Commerce Clause. Finally, state laws that authorize shipments prohibited by the Lacey Act or other federal laws will be preempted—but this does not affect interstate commerce within the contiguous U.S. These three potential challenges may require states to engage in careful drafting and regulatory design when establishing or modifying rules to enable or limit the trade in alternative lobster baits.

The ever-changing fisheries management landscape is requiring states to reconsider whether and how they regulate the import, sale, and use of lobster bait. As factors such as climate change and fisheries management decisions continue to impact the population levels of baitfish like herring, lobstermen and other commercial sectors will look towards other bait sources in order to continue their livelihoods. Careful consideration is needed to understand the biosecurity risks that these alternatives pose and how to mitigate them.